

REMARKS

Examiner rejected claim 1 under 35 U.S.C. 102(b). In particular, the Examiner stated:

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Shen et al. (USPN 5956088), hereinafter simply Shen.

In regard to claim 1, Shen teaches A method for associating time related properties with Temporal Sequence Presentation Data (presentation of data) elements in a digital rendering system having a Variable Rate Presentation capability, see col. 25 lines 9-12, the method comprising steps of receiving a rate of presentation, updating a Current Presentation Rate parameter; organizing the Temporal Sequence Presentation Data elements into buffers; see col. 25 lines 12-14; presenting the buffers for presentation rate modification and rendering; see col. 26 lines 30-35; determining a number of unmodified data elements (unmodified picture) in each buffer and an Unmodified Rendition Period (time stamps) of each data element, and retaining, as a property of each buffer, an Unmodified Cumulative Rendition Period (time stamp) for the buffer; see col. 13 line 25-34; determining and retaining as a property of the buffer, a Data Time; presentation rate modifying the data elements in the buffer and storing them in a modified buffer; determining and retaining, as a property of a modified buffer, a number of modified data elements in the modified buffer and a Modified Rendition Period (presentation time stamp) of each data element in the modified buffer; see col. 24 lines 53-59; determining and retaining, as a property of the modified buffer, a Modified Cumulative Rendition Period (decode time stamp) for the modified buffer; see col. 24 lines 59-67; determining and retaining, as a property of the modified buffer, a Modified Presentation Time (time master) of the modified buffer; and determining and retaining, as a property of the modified buffer, a Cumulative Modified Data Element Count associated with a first data element in the modified buffer. See col. 25 lines 20-25.

Applicants respectfully traverse the Examiner's rejection.

Regarding claim 1:

First, Applicants respectfully submit that Shen et. al. discloses a method for reducing the size of a media stream that is completely different from the method of claim 1 (i.e., a method for associating time related properties with Temporal Sequence Presentation Data elements in a digital rendering system having a Variable Rate Presentation capability).

The Examiner asserts that Shen et al teaches a digital rendering system having a Variable Rate Presentation capability at col. 25, lines 9-12, and the Examiner further asserts that Shen et al. discloses presentation rate modification at col. 26, lines 30-35. Shen et al. states the following at col. 25, lines 14-17: "Thus, playback of several streams is synchronized by adjusting the playback of all streams to a single master time base rather than by adjusting the playback of one stream to match that of another." Applicants respectfully submit that the synchronization of

streams of data to a time base disclosed in Shen et al. is not related at all to presentation rate modification required by claim 1 which relates to faster or slower presentation or playback of a data stream. To understand the concept of changing a presentation rate, consider a movie that shows an image of a running analog clock (having second, minute, and hour hands), and an accompanying voice that constantly announces the current time. As time passes in the movie, the hands of the clock will move, and the speaker will announce later and later times. By changing the presentation rate of the movie, the speed with which the clock hands move and how quickly the announcer speaks would change. As the Examiner can appreciate from this, nothing Shen et al. teaches, hints or suggests has the effect of changing the speed with which the clock hands move, or how quickly the announcer speaks. Further, since the method of claim 1 relates to a digital rendering system that has a variable rate presentation capability, and the method of claim 1 enables the announcer's voice to change and the movement of the clock hands to change as presentation rate is varied, the method of claim 1 is different from anything taught or suggested in Shen et al.

Shen et al. sets forth the following at col. 26, lines 30-35: "modifying each said selected encoded picture by reducing prediction error data to form a corresponding modified encoded picture, said modified encoded picture having less data than said selected encoded picture." Applicants respectfully submit that this shows that Shen et al. merely teaches reducing the amount of data in a picture to provide better utilization of data channels. Applicants respectfully submit that this teaching of merely reducing the amount of data of a picture is not the same as modifying the data to effectuate a change of presentation rate of the picture. The Examiner is referred to the specification of the patent application at p. 5, line 17 to p. 6, line 24 to help better understand the concepts of presentation (or playback) rate and variation of presentation rate. In light of this, Applicants respectfully submit that Shen et al. teaches nothing whatsoever related to modifying the data to effectuate a change of presentation rate of the data. Specifically, Shen et al. recognizes that modifying the data causes impairments to the data, for example, see col. 9, lines 14-17 of Shen et al. which states: "Reducing the amount of data is done according to the present invention, by selectively increasing the compression ratio during certain complex scenes, thus affecting image quality." The type of impairments that occur as a result of having less information than would normally be used to render the information. Shen et al. goes

on to state at col. 9, lines 57-60: "Therefore, in accordance with the method of the present invention, post-processing techniques aimed at reducing peak data rates are limited only to data that does not affect the image quality of other video frames." Thus, as the Examiner can readily appreciate from this, there is no teaching, hint or suggestion of any kind whatsoever for modifying data to provide a change in the presentation rate of data.

Second, Applicants respectfully submit that Shen et al. does not teach, hint or suggest "receiving a rate of presentation, and updating a Current Presentation Rate parameter" as required by claim 1. Applicants respectfully submit that, as set forth above, Shen et al. does not teach, hint or suggest such a step because Shen et al. does not teach, hint or suggest any method or apparatus that modifies a presentation rate. As such, Shen et al. does not teach, hint or suggest a need to know a presentation rate, and Shen et al. does not teach, hint or suggest altering a current presentation rate. Put another way, in Shen et al., decoder 717 (refer to Fig. 7, Fig. 9, and col. 14, line 10 of Shen et al.) always plays (i.e., decodes) at a presentation rate of 1.0.

Third, Applicants respectfully submit that Shen et al. does not teach, hint or suggest "presentation rate modifying the data elements in the buffer" as required by claim 1. Applicants respectfully submit that, as set forth above, Shen et al. does not teach, hint or suggest such a step and, in addition, Shen et al. does not teach, hint or suggest any apparatus that includes a Presentation Rate Modification Module. As such, Applicants respectfully submit that Shen et al. teaches that the presentation rate of the data elements (i.e., in the data packets) is never altered.

Fourth, Applicants respectfully submit that Shen et al. does not teach, hint or suggest "determining and retaining as a property of a modified buffer, ... a Modified Rendition Period of each data element in the modified buffer" as required by claim 1. The Examiner asserts that Shen et al. discloses this step at col. 24, lines 53-59, and the Examiner asserts that the Modified Rendition Period of each data element is a presentation time stamp disclosed in the cited text of Shen et al. As set forth in Shen et al. in the cited text, a presentation time-stamps (PTS) is the time at which the first unit (audio frame or video picture) in a packet of data is to be presented to a viewer, and a decoding time-stamp (DTS) is the time at which the first unit (audio frame or video picture) is to be decoded. However, Applicants respectfully submit that the Modified Rendition Period of claim 1 is not a presentation time-stamp. Instead, as set forth in

the specification of the patent application at p. 8, lines 23-25, p. 9, lines 26-29, and p. 13, lines 5-7, the Modified Rendition Period is a measure of elapsed time, or duration, over which an individual data element should be presented. Thus, Applicants respectfully submit that Shen et al. does not teach, hint or suggest determining or retaining a Modified Rendition Period because, as the Examiner can readily appreciate from the above, the PTS of Shen et al. is not a Modified Rendition Period of claim 1. In addition, as was set forth above, since Shen et al. does not teach, hint or suggest presentation rate modifying the data elements in a buffer and storing them in a modified buffer, Shen et al. does not teach, hint or suggest this step.

Fifth, Applicants respectfully submit that Shen et al. does not teach, hint or suggest “determining and retaining, as a property of the modified buffer, a Modified Cumulative Rendition Period for the modified buffer” as required by claim 1. The Examiner asserts that Shen et al. discloses this step at col. 24 lines 59-67, and the Examiner asserts that the Modified Cumulative Rendition Period for the modified buffer is a decode time stamp disclosed in the cited text of Shen et al. As set forth in Shen in the cited text, a presentation time-stamps (PTS) is the time at which the first unit (audio frame or video picture) in a packet of data is to be presented to a viewer, and a decoding time-stamp (DTS) is the time at which the first unit (audio frame or video picture) is to be decoded. However, Applicants respectfully submit that the Modified Cumulative Rendition Period for the modified buffer is not a decoding time-stamp. Instead, as set forth in the specification of the patent application p. 8. lines 23-25, p. 9, lines 26-29, and p. 13, lines 5-11, the Modified Cumulative Rendition Period is a measure of elapsed time, or duration, of the rendering process for the data elements of the modified buffer. Thus, Applicants respectfully submit that Shen et al. does not teach, hint or suggest determining or retaining a Modified Cumulative Rendition Period because, as the Examiner can readily appreciate from the above, the DTS of Shen et al. is not a Modified Cumulative Rendition Period of claim 1. In addition, as was set forth above, since Shen et al. does not teach, hint or suggest presentation rate modifying the data elements in a buffer and storing them in a modified buffer, Shen et al. does not teach, hint or suggest this step.

Sixth, Applicants respectfully submit that Shen et al. does not teach, hint or suggest “determining and retaining, as a property of the modified buffer, a Modified Presentation Time” as required by claim 1. The Examiner points to col.25, lines 20-25 of Shen et al. as

support for his assertion that Shen et al. teaches this step, and the Examiner asserts that the Modified Presentation Time is a time master disclosed in the cited text of Shen et al. As set forth in Shen et al. at col. 25, lines 5-10, a time-master is the system clock that all of the synchronized decoders and the source of the coded data use "to avoid overflow and underflow in finite size buffers, while maintaining synchronization of the presentation of data." In addition, Shen et al. at col. 25, lines 20-25 describes a technique whereby each decoder maintains a local copy of the system time-clock (STC). However, Applicants respectfully submit that the Modified Presentation Time of claim 1 is not a time master. Instead, as set forth in the specification of the patent application at p. 13, lines 12-16, the Modified Presentation Time is a parameter that reflects the appropriate moment at which a frame (packet) is to be presented as a result of a dynamically changing presentation rate. It should be noted that the Modified Presentation Time depends upon all previous alterations to the presentation rate, and as a result, in general, it will vary from one presentation to the next. In fact, Applicants respectfully submit that this also distinguishes it from a Presentation Time-Stamp of Shen et al. since the Presentation Time-Stamp disclosed in Shen et al. is not dependent upon a dynamically changing presentation rate, and it will not vary from one presentation to the next. Thus, Applicants respectfully submit that Shen et al. does not teach, hint or suggest determining and retaining a Modified Presentation Time because, as the Examiner can readily appreciate from the above, the time-master of Shen et al. is not a Modified Presentation Time of claim 1, and the Presentation Time Stamp of Shen et al. is not the Modified Presentation Time of claim 1. In addition, as was set forth above, since Shen et al. does not teach, hint or suggest presentation rate modifying the data elements in a buffer and storing them in a modified buffer, Shen et al. does not teach, hint or suggest this step.

Seventh, Applicants respectfully submit that Shen et al. does not teach, hint or suggest "determining and retaining, as a property of the modified buffer, a Cumulative Modified Data Element Count" as required by claim 1. The Examiner points to col.25 lines 20-25 of Shen et al. as support for his assertion that Shen et al. teaches this step. Shen et al. at col. 25, lines 20-25 describes a technique whereby each decoder maintains a local copy of the system time-clock (STC). However, Applicants respectfully submit that the Cumulative Modified Data Element Count of claim 1 is not a local copy of the system time-clock. Instead, as set forth in the specification of the patent application at p. 13, lines 17-21, the Cumulative Modified Data

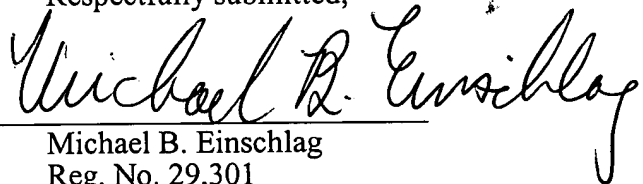
Element Count is a parameter that reflects the total number of data elements to be presented to the user as a result of dynamically modifying the presentation rate. Thus, Applicants respectfully submit that Shen et al. does not teach, hint or suggest determining and retaining a Cumulative Modified Data Count because, as the Examiner can readily appreciate from the above, the local copies of the system time-clock of Shen et al. are not counts of the number of data elements resulting from dynamically varying presentation rate of claim 1. In addition, as was set forth above, since Shen et al. does not teach, hint or suggest presentation rate modifying the data elements in a buffer and storing them in a modified buffer, Shen et al. does not teach, hint or suggest this step.

In light of the above, Applicants respectfully submit that Shen et al. does not anticipate claim 1, and as such, Applicants respectfully request that the Examiner withdraw this rejection.

In light of the above, Applicants respectfully submit that all remaining claims are allowable. Should the Examiner have any questions or wish to discuss any aspect of the application, a telephone call to the undersigned would be welcome.

Respectfully submitted,

By:



Michael B. Einschlag
Reg. No. 29,301
(650) 949-2267
25680 Fernhill Drive
Los Altos Hills, Calif. 94024